

**OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD**

BOARD STAFF'S REVIEW OF THE PETITION

By: Aaron Crane

Petition File No.: 527



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Title: Senior Safety Engineer
Date: June 4, 2012**

Introduction

On January 31, 2012, the Occupational Safety and Health Standards Board (Board) received a petition from Aaron Crane (Petitioner) acting on his own behalf. The Petitioner requested that the Board amend Title 8, California Code of Regulations (CCR), with regard to a whole body vibration quotient for truck drivers.

Labor Code Section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health and requires the Board to consider such proposals and to render its decision no later than six months following receipt of the proposal. In accordance with Board policy, the purpose of this evaluation is to provide the Board with relevant information upon which to base a reasonable decision.

History

There is no record of any previous petition regarding the effects of whole body vibration on truck drivers. However, this petition bears similarities with OSHSB Petition No. 445 (Bradley Clinton, denied October 17, 2002), which requested that commercial vehicles such as UPS delivery trucks be equipped with a three-point (lap and shoulder belt) seat-belt system and head restraints. Both Petition No. 445 and the present petition deal with matters of interstate commerce (trucking), and both deal with truck driver safety, although different aspects. Petition No. 445 requested a three-point seat-belt system and head restraints, whereas the instant request is to establish a whole body vibration quotient for truck drivers.

Reason for the Petition

The Petitioner states that, at the age of 25, and after driving one year, 12 hours/day, 60 hours/week, he experienced severe back pain. He stated that he was very fit and otherwise healthy when these symptoms occurred. He also stated that his stepfather, a truck driver for many years, has also experienced similar symptoms. The petitioner provided links to various studies which link lower back pain to whole body vibration (WBV). He noted that the various

publications from the United Kingdom (UK) indicate that they may already have WBV regulations in-place.

The Petitioner opined that establishing a WBV quotient would relieve California truckers from lower back aches. Furthermore he felt that a WBV quotient would improve driver productivity, reduce days missed and lower medical costs.

National Consensus Standard

Board staff has been unable to locate any applicable national consensus standards regarding WBV for truck drivers.

Federal OSHA Standards

There are no Federal OSHA (29 CFR) standards regarding WBV for truck drivers.

However, trucking in interstate commerce is regulated by the US Department of Transportation (USDOT), Federal Motor Carrier Safety Administration (FMCSA). The FMCSA website states that their primary mission is to reduce crashes, injuries and fatalities involving large trucks and buses. Their focus is on public safety through means including, but not limited to, monitoring driver health and medical qualifications, and hours of service (driving time). With regard to driver safety, FMCSA standards for employee health and safety are found in 49 CFR Chapter III, Federal Motor Carrier Safety Administration. These standards do not address WBV except perhaps indirectly through the maximum allowable hours of service (driving time).

Division of Occupational Safety and Health (Division) Report

Since the Petitioner's request lacked specifics, the Division interpreted the Petitioner's request to be to control driver exposure to WBV through such means as vibration dampening operator seating for heavy over-the-road trucks (semi tractor-trailer trucks). The Division evaluation

noted that there is research indicating a relationship between lower back pain, WBV and extended hours of truck driving.

The Division did not find any state or federal occupational safety and health standards or federal motor vehicle safety standards regarding seating design to mitigate hazards of WBV or frequent impact shocks associated with driving heavy over-the-road vehicles.

The Division noted that CCR Title 8 has no jurisdiction regarding public roadway surface conditions. The Division also noted that 49 CFR contains no rules or guidance regarding seat design for control of WBV exposures. The Division opined that Title 8, Section 5110, may have application in evaluation and remediation of WBV exposures if the Division had jurisdiction over open-road trucking operations. However, because the USDOT has enacted some rules applicable to truck seating and operator safety, the Division questioned whether it would be able to exercise jurisdiction for truck operators involved in interstate commerce.

The Division concluded that, although it believes there is a hazard to truckers from WBV, it has doubts that it would have jurisdiction to enforce any WBV occupational safety and health standards on truckers regulated by USDOT.

Staff Evaluation

In support of his request, the Petitioner forwarded several links to websites with information relevant to the subject of WBV. Some of the links were to research abstracts. A common thread of study results was that individual factors such as back trauma and smoking and work-related risk factors such as heavy lifting and bending related significantly to the onset of lower back pain (LBP). The studies also noted increased likelihood of developing LBP with an increase in WBV exposure (such as daily driving time and cumulative total hours of exposure). In other words, the studies noted a dose-response type of relationship between WBV exposure and LBP.

Conversely, the risk of LBP can be reduced by means of engineering controls such as vibration damping and good ergonomic design, and work practices such as reduced exposure and reducing other risks such as lifting.

The Petitioner also provided links to the UK Health & Safety Executive (HSE) which is the British counterpart of federal OSHA. He speculated that, based on information at the HSE website, the UK might already have regulations regarding WBV. Board staff has reviewed the information provided and related HSE publications. An HSE pamphlet on control of workplace vibration¹ states that most employees who drive road-going vehicles are unlikely to experience high levels of WBV that would warrant action under the UK vibration control regulations.

The UK vibration control regulations²:

1. establish daily exposure action values and exposure limit values, normalized to an 8 hour day;
2. require the employer to conduct a risk assessment;
3. require the employer to eliminate or control exposure to vibration within the established limits;
4. require health surveillance if the risk assessment indicates that there is a risk to employee health, and
5. contain provisions for instruction and training.

The HSE pamphlet lists good engineering controls and work practices (i.e. vibration damping and good ergonomic design, reduced exposure and reducing other risks such as lifting), that should mitigate LBP attributable to WBV. The pamphlet also noted that those that work off-road are at increased risk of LBP.

Board staff notes that the Petitioner stated that he was driving 12 hours/day, 60 hours/week. It appears that the FMCSA generally limits drivers to 11 hours driving time in a 14 hour period, with the remaining 10 hours off-duty. However, not all the Petitioner's 12 hours/day may have been behind the wheel, breaks might have been taken, and the driver might have been on a two-driver team. In light of the possible variations, Board staff cannot determine whether federal

¹ Control Back-Pain Risks from Whole-Body Vibration –Advice for employers on the Control of Vibration at Work Regulations 2005, published by the UK HSE, publication no. INDG242(rev1), 09/11.

² UK Statutory Instrument 2005 No. 1093, Health & Safety, The Control of Vibration at Work Regulations 2005, effective 6 July 2005.

hours of service (driving time) have been exceeded. However, the Applicant's LBP problem may be attributable, in part, to excessive hours behind the wheel. As noted previously in this evaluation, exposure time certainly is a factor in the WBV equation.

Board staff has also contacted OSHA Region 9, and the Area Director indicated that truck driver safety is outside their jurisdiction. He was of the opinion that matters relating to over-the-road driver safety, including WBV, are within the purview of the USDOT.

Board staff also notes that the Division stated that, if it had jurisdiction, it felt that no new rulemaking would be necessary, as Title 8, Section 5110, Repetitive Motion Injuries, has application to the basic issues in this matter. Board staff agrees.

Board staff is of the opinion that the USDOT/FMCSA has jurisdiction over the hours and safety of commercial motor vehicle operators. Any attempt to limit application to intrastate commerce and/or to impose state standards in this area could have broad and unforeseen ramifications beyond over-the-road trucking. USDOT regulates trucking nationally, and since large numbers of trucks cross state lines, it is good public policy to have uniform national regulations. It would be unreasonable to expect truckers to know and comply with a new set of regulations each time the truck crosses a state line.

Recommendation

Board staff has considered the Petitioner's request to amend Title 8, California Code of Regulations, with regard to establishing a whole body vibration quotient for truck drivers. The Board has also considered the recommendations of the Division and federal OSHA Region 9 regarding this petition. For the reasons stated in the preceding discussion, Board staff recommends that the Petition be DENIED.